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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,852	12/12/2005	Steven Paul Boneham	87792.065605	7202

23469 7590 04/11/2007
JAECKLE FLEISCHMANN & MUGEL, LLP
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EXAMINER

KINSEY, NICOLE

ART UNIT	PAPER NUMBER
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1648

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/537,852	Applicant(s) BONEHAM ET AL.	
	Examiner Nicole E. Kinsey, Ph.D.	Art Unit 1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13,15,17-20,22,23 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-13,15,17-20,22,23 and 25-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-12, 15 (as it reads on a molecule of claim 1 or a trimeric or multimeric presentation of a peptide as defined in claim 1) and 23 (as it reads on a molecule of claim 1 or a trimeric or multimeric presentation of a peptide as defined in claim 1), the special technical feature is a molecule, which contains a partially occluded and/or multimeric presentation of a peptide, which is recognized by an HIV-1 neutralizing antibody.

Group II, claims 13, 15 (as it reads on a polynucleotide) and 23 (as it reads on a polynucleotide), the special technical feature is a polynucleotide that encodes a peptide.

Group III, claims 17-18 and 25, the special technical feature is a method for obtaining an HIV-1 neutralizing antibody via a method for treating or preventing HIV1 infection that induces antibodies against HIV-1.

Group IV, claim 19, the special technical feature is a method for obtaining an HIV-1 neutralizing antibody via phage display.

Group V, claims 20 and 22, the special technical feature is an antibody and a composition comprising an antibody.

Group VI, claim 26, the special technical feature is a method for detecting HIV-1 neutralizing antibodies.

Group VII, claims 27-28, the special technical feature is a method for identifying a molecule, which may be useful in raising a neutralizing response to HIV-1.

Group VIII, claim 29, the special technical feature is a molecule identified by the method of Group VII.

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Group IX, claim 30, the special technical feature is a method for treating or preventing HIV-1 infection by administering the antibody of group V.

The inventions listed as Groups I-IX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature of the inventions listed as Groups VII and VIII is a method for identifying a molecule, which may be useful in raising a neutralizing response to HIV-1 and an identified molecule. Because this technical feature is not shared with any other Group, unity of invention is lacking between Groups VII-VIII and all other Groups. While Groups VII and VIII share a special technical feature, that feature does not contribute over the prior art. For example, Montefiori et al. immunized subjects with HIV-1 gp160 and produced neutralizing antibodies against V3.

The technical feature shared among the inventions listed as Groups I-VI and IX is a molecule, which contains a partially occluded and/or multimeric presentation of a peptide, which is recognized by an HIV-1 neutralizing antibody. The noted shared technical feature does not provide a contribution over the prior art, as evidenced by the teachings of Robey et al. (U.S. Patent No. 5,750,332). Robey et al. discloses peptomers, which can be a homopolymer in which all of the peptide monomers have the same sequence. One peptomer of Robey et al. is composed of peptide monomers of the CD4 binding region of gp120 from HIV (see the Summary of the Invention). It is well known in the art that broadly neutralizing antibodies such as b12 bind to the conserved CD4-binding site of HIV gp120. Hence, in the absence of a contribution over the prior art, the noted shared technical feature is not a shared special technical feature. Without

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a shared special technical feature, the inventions listed as Groups I-VI and IX lack unity with one another and with the inventions of Groups VII and VIII.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole E. Kinsey, Ph.D. whose telephone number is (571) 272-9943. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on (571) 272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nicole E Kinsey, Ph.D.
Examiner
Art Unit 1648

Stacy B. Chen 4/5/07
STACY B. CHEN
PRIMARY EXAMINER